



The Effect of Mental Training Exercises and Mental Visualization on Improving Some Physical Abilities of Discus Throwers

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Abstract: One of the most important benefits of mental training and mental perception of athletes is improving focus and attention, as the athlete is trained to improve his ability to focus and focus on the task at hand. The athlete is also trained to visualize goals positively and think positively to achieve the best results. In addition, mental training and mental visualization help to increase the confidence and psychological stamina of the athletes, as they are trained to think positively, control their emotions and improve their psychological stamina. What are the best mental training and mental visualization techniques that can be used to improve the performance of discus athletes? To identify the effect of mental training exercises and mental visualization techniques in improving the speed and power of discus throwing for athletes. After training in muscular and mental relaxation comes mental imagery, which is one of the most widely used methods, and it is a kind of simulation that takes place mentally. An experimental study will be conducted on a sample of discus throwers, in which the athletes' performance will be compared before and after applying mental training exercises and mental visualization techniques.

Key words: Mental Training.

Introducing the search:

1-1-Introduction and the importance of research:

Mental training and mental visualization are among the modern methods in improving the performance of athletes in individual and team sports. This technology helps the athlete to develop his mental skills, focus on goals, and improve his athletic performance.

One of the most important benefits of mental training and mental perception of athletes is improving focus and attention, as the athlete is trained to improve his ability to focus and focus on the task at hand. The athlete is also trained to visualize goals positively and think positively to achieve the best

results. In addition, mental training and mental visualization help to increase the confidence and psychological stamina of the athletes, as they are trained to think positively, control their emotions and improve their psychological stamina.

In team sports, mental training and mental visualization helps to improve communication between players and increase interdependence between them, and thus improve their collective performance.

In the end, it can be said that mental training and mental visualization has become one of the modern training methods in the world of sports, as it helps the athlete to improve his performance, develop his mental skills, and focus on goals. Therefore, coaches and athletes must take advantage of this technology to achieve the best results in sports competitions.

1-2-Research problem:

What are the best mental training and mental visualization techniques that can be used to improve the performance of discus athletes?

1-3-Research objective:

1-To identify the effect of mental training exercises and mental visualization techniques in improving the speed and power of discus throwing for athletes.

1-4- research areas:

1-Al-Bishri: Olympi competitors for Al-Batal project in Al-Shatrah.

2-Temporal: for the period from (1/2/2023) to (13/5/2022).

3-Location: Al-Fattahiya Sports Stadium..

2-Theoretical and similar studies:

2-1-Theoretical studies:

2-1Mental imagery

After training in muscular and mental relaxation comes mental imagery, which is one of the most widely used methods, and it is a kind of simulation that takes place mentally. There is no doubt that everyone uses this method in one way or another, even if it is not in an organized or intentional manner. By mentally reviewing what we will talk about on the phone before making the call, and mental perception gives the individual the opportunity to deal with the problem when it arises and deal with it better, as this perception is based on several axes, which are visual, auditory, kinesthetic and emotional sense, as indicated by many researchers and applied by the researcher in his studies.

2-2 The effect of mental training and mental perception on the performance of athletes

Sport is one of the vital activities that help improve the general health of a person, in addition to improving the individual's athletic and physical performance. In order to achieve this, the athlete needs different training and exercises, but what many athletes do not know is that there are mental exercises that can greatly affect their athletic performance.

the previous one or constructing a new image of a new event and repeating it more than one time.

3-Research methodology and field procedures:

3-1-Research Methodology:

An experimental study will be conducted on a sample of discus throwers, in which the athletes' performance will be compared before and after applying mental training exercises and mental

visualization techniques. Standard tools will be used to measure disc speed and power, and data will be analyzed using appropriate statistics.

3-2-The research community and its sample:

The researcher chose the research community, who are the disc throwers in Al-Shatrah, whose number is (6) runners, and they were chosen as a sample for the research, as the percentage of the sample formed 100%.

Then, the researcher carried out the equivalence between the two groups in the variables under study, as shown in Table (2), where we note the randomness in all the variables of the study, and this indicates the equivalence of the three groups.

Table (2) shows the equivalence of the research sample

variants	sum of square		freedom	mean	Calculated t	Sig.	result
explosive power	between aggregates	0,03	2	0,018	0,610	0,561	random
	within the aggregates	0,01	12	0,432			
maximum speed	between aggregates	0,026	2	0,013	0,38	0,68	random
	within the aggregates	0,14	12	0,034			
speed endurance	between aggregates	0,03	2	0,016	0,10	0,36	random
	within the aggregates	0,17	12	0,14			
Achievement	between aggregates	0,03	2	0,01	0,013	0,98	random
	within the aggregates	0,032	12	0,11			

3-Devices and tools used:

One of the important things to accomplish and complete the experiment is the research tools, which are “the means by which the researcher can collect data and solve his problem to achieve the objectives of the research, whatever those tools are like data, samples, and devices...”

➤ Arab and foreign sources.

Personal interviews.

➤ Tests and measurement.

Observation and experimentation

3-3-1Determine the search variables:

Mental visualization exercises:

The researcher designed mental imagery exercises for disc players, where the number of designed exercises was (10) exercises that were presented to a group of experts, where it was agreed on (10) exercises and excluding (2) exercises as not commensurate with the age of the research sample and the

length of time during The application where it has been processed statistically through the percentage law.

3-2 Exploratory experience:

The exploratory experiment is a "preliminary experimental study conducted by the researcher on a small sample before carrying out his research in order to choose the research methods and tools". Therefore, the researcher conducted his reconnaissance experiment on (5) puck players in Al-Tuffahiya Stadium on 1/2/2022, which coincides with Sunday at four o'clock in the afternoon.

The purpose of conducting the exploratory experiment was:

- ✓ Knowledge of the difficulties facing the researcher.
- ✓ The extent to which the research sample understood the vocabulary of the exercises.
- ✓ Identify the validity of the devices and tools used.
- ✓ Knowledge of the efficiency of the auxiliary work team.
- ✓ Know the time taken to perform mental visualization exercises to take this into account in the main experiment

4- Exercises and tests used:

1-Visualize yourself doing the correct movements in the sport you play, such as visualizing yourself throwing correctly or catching the disc correctly.

2-Visualize yourself succeeding in accomplishing the required task in sports, such as visualizing yourself achieving the highest distance in discus throwing.

3-Visualize yourself dealing well with the psychological pressures you face in the race, such as visualizing yourself bearing pressure and dealing with it well.

4-Visualize yourself cooperating well with your teammates on the field.

5-Visualize yourself outperforming your competitors in a race, such as visualizing yourself outperforming your opponents in discus throwing

5-Pre-tests for the research sample:

The pre-exams were conducted on (1/2/2023) on Sunday at four o'clock in the afternoon, after the sample members warmed up and prepared for the achievement of each contestant.

3-5-1 The main experience:

The main experiment began on (23/2/2014 on Tuesday at 4:00 pm) and until (29/4/2014 on Tuesday at 4:00 pm), where the experimental group was given mental training exercises and mental visualization for a period of (60) days, at the rate of four training units per week. The control group was not given exercises.

3-5-2-Post-tests for the research sample:

The researcher conducted the post-tests on (5/13/2023) on Tuesday at four o'clock in the afternoon after the end of the main experiment period to identify what the study variables had reached and the extent of impact and improvement in the same way as the pre-tests were conducted.

3-6-Statistical Methods:

The researcher used the statistical program (spss) version (20) using an electronic calculator

4-1 Presentation, analysis and discussion of the results of the pre and post test for the first group:

Table (2): It shows the arithmetic means and standard deviations of the pre and post tests, the calculated (t) value, and the level of significance for the experimental group.

Statistics Variables	Measure	before test		After Test		(t)	Sig
		m	Std. ±	m	Std. ±		
explosive force	T/s	5.62	0.203	5.61	0.20	2.66	0.03
maximum speed	T/s	5.50	0.07	5.48	0.09	2.65	0.04
Speed endurance	T/s	5.62	0.20	5.58	0.22	2.63	0.05
achievement	T/s	13.34	0.27	13.30	0.26	2.69	0.03

The researcher believes that the amount of morale obtained by this group, which was given mental visualization exercises and mental training, is the result of a group of reasons, as mental visualization skills are among the skills that can allow the individual to visualize the main and secondary parts of the movement, as well as it clearly shows the result of the player's memorization process. The mistakes committed by the athlete during the training units, as they work to overcome these errors, so the athlete, by taking mental visualization exercises, has obtained the aspects

Positivity for performance, as he affirms, "One of the advantages of visualization is showing the mistakes that the athlete makes, and when repeating them, he tries to avoid these mistakes.

Likewise, the researcher believes that one of the benefits of mental training exercises and mental visualization is determining the appropriate direction according to the smoothness of performance as a result of the mental balance towards the motor duty, that is, it has a positive return through the total harmony between what one can think of and what must be done and how to perform it, as it indicates

The mental and physical interdependence, and then the skill that goes towards the required motor duty, is one of the advantages of mental visualization exercises." Mental visualization can help the athlete improve these traits. For example, basketball players can use mental training to improve their confidence and psychological stamina, where they are trained to visualize themselves scoring points in a match and how to overcome stress during a match.

The effect of mental training and mental imagery on improving athletic performance in team and individual sports

Mental exercises and mental visualization are among the most important methods that athletes can use to improve their performance in team sports. Handball players can use mental visualization to improve their ability to focus and pay attention, as well as improve confidence and psychological endurance. In addition, soccer players can use mental training to improve their interactions with their teammates on the pitch, as they are trained to visualize themselves cooperating with each other to achieve the desired goal.

4-2-Presentation, discussion and analysis of the pre and post test of the control group

Table (3). It shows the arithmetic means and standard deviations of the pre and post tests, the calculated (t) value, and the level of significance for the (control) group.

Statistics Variables	Measure	before test		After Test		(T)	Sig
		m	Std. ±	m	Std. ±		
explosive force	T/s	5.59	0.17	5.45	0.28	1.36	0.24
maximum speed	T/s	5.54	0.14	5.30	0.19	2.88	0.04
Speed endurance	T/s	2.21	0.08	2.17	0.10	1.98	0.11

achievement	T/s	13.3	0.33	12.9	0.46	2.69	0.05
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He believes that mental exercises and mental visualization are among the most important methods that athletes can use to improve their performance in individual sports. For example, tennis players can use mental visualization to improve their performance in matches, as they can visualize how to execute their strokes correctly and accurately, as well as visualize the movements they need to move their body properly. In addition, athletes can use mental training to improve their ability to focus and pay attention, as the mind is trained to focus on the task at hand and ignore any external distractions, which helps improve their performance in matches.

Improving focus and attention of athletes with mental training and mental visualization

Focus and attention are among the most important qualities that an athlete needs to achieve excellent athletic performance, so mental training and mental visualization can help the athlete improve these qualities. For example, soccer players can use mental visualization to improve their ability to focus and pay attention, as they can visualize how to pass the ball accurately as well as visualize the movements of opposing players to avoid distraction and focus on the task required disparate "(1)

5- Conclusions and recommendations

5-1 Conclusions:

Through the results of the research, the researcher was able to reach the following conclusions.

- 1-The two groups achieved significant differences in the level of achievement in throwing the disc through the comparison between the pre and post tests.
- 2-The results showed significant differences for the experimental group that used (mental training and mental imagery) in the achievement stages.
- 3-The results showed significant differences for the control group only in the maximum speed stage, and thus affected the achievement slightly.
- 4-The results showed the effect of mental training exercises on mental perception, as it gave the players an opportunity to know the subtleties of movement and master it without the actual performance and without feeling bored and tired

5-2-Recommendations:

In light of the findings, the researcher recommends the following:

- 1-The need to use mental visualization exercises in arena and field games in general and other activities in particular.
- 2-Conducting more designs for mental visualization exercises in the activities of the arena and other field games for all age.

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